

**ABSTRACT OF THE DISCLOSURE**

The present invention provides a method of forming a patterned thin film on a surface of a substrate  
5 having thereon a patterned underlayer of a self-assembled monolayer. The method comprises depositing a thin film material on the self-assembled monolayer to produce a patterned thin film on the surface of the substrate. The present invention further provides  
10 processes for preparing the self-assembled monolayer. The present invention still further provides solution-based deposition processes, such as spin-coating and immersion-coating, to deposit a thin film material on the self-assembled monolayer to produce a patterned  
15 thin film on the surface of the substrate.